Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Original) An exercise apparatus for exercising the upper body simultaneously with lower body exercise, the apparatus comprising:

a lower body exercise machine; and

at least one upper body exercise module attached to the lower body exercise machine, each upper body exercise module comprising:

an elongated connector having first and second ends;

a user engagement connected to the elongated connector first end for engaging or being engaged by a body appendage of a user; and

a resistance mechanism for resisting a tensile force applied to the first end of the elongated connector;

each upper body exercise module adapted to provide resistance to a full natural forward arm swing of at least one arm of the user;

each upper body exercise module attached to the lower body exercise machine via a mounting device comprising a mounting arm adapted to position the upper body exercise module behind and to one side of the user when the user is in a normal use position on the lower body exercise machine, the mounting arm positioned to avoid interference with an egress path directly behind the user in the normal use position on the lower body exercise machine.

2. (Original) The exercise apparatus of claim 1, comprising a first upper body exercise module and associated mounting device on a left side of the machine and a second upper body exercise module and associated mounting device on a right side of the machine.

3. (Original) The exercise apparatus of claim 2, wherein the mounting arm for the left side of the machine is not connected to the mounting arm for the right side of the machine.

4. (Original) The exercise apparatus of claim 1, wherein the lower body exercise device comprises a treadmill.

5. (Original) The exercise apparatus of claim 1, wherein the mounting device is movable from a use position to a non-use position.

6. (Original) The exercise apparatus of claim 5, wherein the mounting device is pivotable from the use position to the non-use position.

7. (Original) The exercise apparatus of claim 6, wherein the mounting device is pivotable on a vertical plane.

8. (Original) The exercise apparatus of claim 6, wherein the mounting device is pivotable on a horizontal plane.

9. (Original) The exercise apparatus of claim 5, wherein the mounting device is adjustable to a plurality of use positions.

10. (Original) The exercise apparatus of claim 5, wherein the mounting device is slidable from the use position to the non-use position.

11. (Original) The exercise apparatus of claim 1, wherein the mounting device is adapted to fasten to a side of the lower body exercise machine.

12. (Original) The exercise apparatus of claim 1, wherein the mounting device is adapted to fasten to a foot of the exercise machine.

13. (Original) The exercise apparatus of claim 1, wherein the mounting device has only a single, non-adjustable use position.

14. (Original) The exercise apparatus of claim 1, wherein the mounting device comprises means for adjusting height of the upper body exercise device relative to the exercise machine.

15. (Original) The exercise apparatus of claim 1, wherein the mounting device comprises a mounting bar and an extension arm attached to the mounting bar, the mounting bar adapted to fasten to a foot of the exercise machine.

16. (Original) The exercise apparatus of claim 15, wherein the extension arm comprises a lower portion, an upper portion, and an angle A between the upper portion and the lower portion, the angle A comprising an angle in the range of 90° to 180°.

17. (Original) The exercise apparatus of claim 16, wherein the mounting device is adapted to fasten to the foot of the exercise machine such that the extension arm creates an angle B to a horizontal plane, the angle B comprising an angle in the range of 0° to 90°.

18. (Original) The exercise apparatus of claim 15, wherein the mounting device is fastened to the foot of the exercise machine using a pin that extends through a hole in the mounting bar and through a brace plate on the foot of the lower body exercise machine.

19. (Original) The exercise apparatus of claim 15, wherein the foot of the exercise machine comprises a receiving member into which one end of the mounting bar is inserted, the receiving member having a first feature and the mounting bar having a second feature that interfaces with the first feature to prevent rotational movement of the mounting bar relative to the first member.

20. (Original) The exercise apparatus of claim 19, wherein the receiving member comprises a sleeve having as the first feature one or more notches and the mounting bar comprises as the second feature one or more pins for interfacing with the notches.

21. (Original) The exercise apparatus of claim 19, further comprising a biasing member for interfacing with the mounting bar to bias the first feature to interface with the second feature.

22. (Original) The exercise apparatus of claim 21, wherein the biasing member comprises a mounting cap that affixes to the end of the mounting bar that is inserted in the receiving member, the mounting cap comprising a spring mounted between an end of the mounting cap and a surface of the foot to provide the bias.

23. (Original) The exercise apparatus of claim 21, wherein the receiving member has a plurality of first features that provide the mounting bar with a plurality of rotational positions relative to the receiving member and the biasing member provides a degree of bias that is sufficiently great to cause the first feature to interface with the second feature

when not being manipulated by a user, and that is sufficiently small to allow a user to manipulate the mounting arm to overcome the bias and move the mounting bar from a first rotational position to a second rotational position relative to the receiving member.

24. (Original) The exercise apparatus of claim 1, wherein the upper body exercise module attaches to the mounting arm in plurality of different rotational positions relative to an axis of the mounting arm.

25. (Original) The exercise apparatus of claim 1, wherein the upper body exercise module is adapted for both (a) upper body exercise simultaneous with use of the lower body exercise machine and (b) upper body exercise independent of use of the lower body exercise machine.

26. (Original) The exercise apparatus of claim 1, wherein the upper body exercise module is adapted to attached to the mounting arm in at least a first position for use of the upper body exercise module while a user is in a use position on the lower body exercise machine, and in a second position for use while the user is not in the use position.

27. (Original) The exercise apparatus of claim 1, further comprising a pulley or guide positioned in front of the normal use position on the lower body exercise machine adapted for engaging and redirecting the elongated connector to provide resistance to a backward arm swing of the user.

28. (Original) The exercise apparatus of claim 1, wherein the upper body exercise machine is detachable from the mounding arm, the apparatus further comprising a forward mounting device attached to a forward portion of the lower body exercise machine and on which the upper body exercise module is adapted to be mounted to provide resistance to a backward arm swing of the user.

29. (Original) The exercise apparatus of claim 1, wherein the lower body exercise machine is adapted to allow a full, natural arm swing of the user without the user's arm hitting any portion of the lower body exercise machine or attachment to the lower body exercise machine.

30. (Original) An exercise apparatus for exercising the upper body simultaneously with lower body exercise, the apparatus comprising:

a lower body exercise machine; and

at least one upper body exercise module attached to the lower body exercise machine, each upper body exercise module comprising:

an elongated connector having first and second ends;

a user engagement connected to the elongated connector first end for engaging or being engaged by a body appendage of a user; and

a resistance mechanism for resisting a tensile force applied to the first end of the elongated connector;

each upper body exercise module adapted to provide resistance to a full natural forward or backward arm swing of at least one arm of the user;

wherein the lower body exercise machine comprises a machine selected from a group consisting of: air walkers/gliders, upright and recumbent bicycle machines, torso-twisting disks, cross-trainers, steppers, elliptical exercise machines, cross-country and downhill ski machines, trampolines, squat machines, rowing machines, stretching machines, and abdominal machines.

31. (Original) An exercise apparatus for exercising the upper body simultaneously with lower body exercise, the apparatus comprising:

a lower body exercise machine; and

at least one upper body exercise module attached to the lower body exercise machine, each upper body exercise module comprising:

an elongated connector having first and second ends;

a user engagement connected to the elongated connector first end for engaging or being engaged by a body appendage of a user;

a spool connected to the elongated connector second end and on which the elongated connector is adapted to be wound;

a resistance mechanism for resisting a tensile force applied to the first end of the elongated connector, the resistance mechanism is adapted to provide frictional resistance to unwinding of the spool; and

a retraction mechanism for automatically rewinding the spool;

each upper body exercise module adapted to provide resistance to a full natural forward arm swing of at least one arm of the user.

32. (Original) The exercise apparatus of claim 31, wherein the upper body exercise module resistance mechanism comprises a braking cylinder and a band brake for frictionally engaging the braking cylinder.

33. (Original) The exercise apparatus of claim 31, wherein the upper body exercise module resistance mechanism comprises a disk and a pair of calipers for frictionally engaging the disk.

34. (Original) The exercise apparatus of claim 31, wherein the upper body exercise module resistance mechanism has an adjustable resistance levels.

35. (Original) The exercise apparatus of claim 34, wherein the upper body exercise module further comprises a visual indicator of the resistance level.

36. (Original) The exercise apparatus of claim 31, wherein:

the elongated connector has a length sufficient to allow a universal user's arm to swing forward to the user's eye-level while engaging the elongated connector; and

the spool has a size adapted to hold substantially all of the elongated connector length.

37. (Original) The exercise apparatus of claim 31, wherein the user engagement is adapted for engaging or being engaged by the user's hand in an open or loose grip.

38. (Original) The exercise apparatus of claim 31, further comprising

a clutch for disengaging the resistance mechanism during rewinding of the spool.

39. (Original) The exercise apparatus of claim 31, wherein the retraction mechanism comprises a coil spring.

40. (Original) The exercise apparatus of claim 31, wherein the upper body exercise module operates independently of the lower body exercise machine.

41. (Original) An exercise apparatus for exercising the upper body simultaneously with lower body exercise, the apparatus comprising:

a lower body exercise machine;

at least one upper body exercise module attached to the lower body exercise machine, each upper body exercise module comprising:

an elongated connector having first and second ends;

a user engagement connected to the elongated connector first end for engaging or being engaged by a body appendage of a user; and

a resistance mechanism for resisting a tensile force applied to the first end of the elongated connector;

each upper body exercise module adapted to provide resistance to a full natural forward arm swing of at least one arm of the user; and

a support structure for preventing the user from being pulled off of the lower body exercise machine by the resistance of the upper body exercise module.

42. (Original) An exercise apparatus for exercising the upper body simultaneously with lower body exercise, the apparatus comprising:

a lower body exercise machine;

at least one upper body exercise module attached to the lower body exercise machine, each upper body exercise module comprising:

an elongated connector having first and second ends;

a hand grip connected to the elongated connector first end for being gripped the user with an open or loose grip; and

a resistance mechanism for resisting a tensile force applied to the first end of the elongated connector;

each upper body exercise module adapted to provide resistance to a full natural forward arm swing of at least one arm of the user.

43. (Original) The exercise device of claim 42, wherein the hand grip comprises a flared-top grip.

44. (Original) The exercise device of claim 43, wherein the flared-top grip comprises a padded, smooth, non-chafing material.

45. (Original) An upper body exercise module for attaching to a lower body exercise machine to allow exercising the upper body simultaneously with lower body exercise, the upper body exercise module comprising:

a mounting interface for mounting the upper body exercise module to the lower body exercise machine;

an elongated connector having first and second ends;

a user engagement connected to the elongated connector first end for engaging or being engaged by a body appendage of a user;

a spool connected to the elongated connector second end and on which the elongated connector is adapted to be wound;

a resistance mechanism for resisting a tensile force applied to the first end of the elongated connector, the resistance mechanism is adapted to provide frictional resistance to unwinding of the spool; and

a retraction mechanism for automatically rewinding the spool;

the resistance device adapted to provide resistance to a full natural arm swing of the user.

46. (Original) The upper body exercise module of claim 45, wherein the mounting interface comprises a mounting arm adapted to position the upper body exercise module behind and to one side of the user when the user is in a normal use position on the lower body exercise machine, the mounting arm positioned to avoid interference with an egress path directly behind the user in the normal use position on the lower body exercise machine.

47. (Original) The upper body exercise module of claim 45, wherein the mounting interface is adapted to retrofit the lower body exercise machine with the upper body exercise module..

48. (Original) The upper body exercise module of claim 45, wherein the mounting interface is adapted to be permanently attached to the lower body exercise machine.

49. (Original) The upper body exercise module of claim 45, wherein the mounting interface comprises a member for attaching the module directly to the lower body exercise machine or to a mounting arm attached to the machine.

50. (Original) An exercise reel comprising:

an elongated connector having first and second ends;

a user engagement connected to the elongated connector first end for engaging a body appendage;

a spool connected to the elongated connector second end and on which the elongated connector is adapted to be wound;

a shaft on which the spool is axially mounted;

a resistance mechanism for resisting unwinding of the spool;

a retraction mechanism for automatically rewinding the spool; and

a clutch located at an interface between the spool and the shaft for engaging the shaft when the spool is being unwound and disengaging the shaft when the spool is being rewound, such that the resistance mechanism is engaged only when the spool is being unwound.

51. (Original) The exercise reel of claim 50, wherein the clutch comprises a needle-roller clutch bearing.

52. (Original) A method of exercising, the method comprising the steps of:

(a) an exerciser walking on a treadmill having a plurality of rear-mounted upper-body resistance devices, each upper body resistance device independently mounted behind and along one side of a walking space on the treadmill such that the exerciser is able to step onto and off of the treadmill from the rear of the treadmill unimpeded by the resistance devices or any mounting structure associated therewith;

(b) the exerciser loosely gripping a user engagement of each rear-mounted resistance device in each hand;

(c) the exerciser walking with a stride that is longer and lower than a normal walking stride for that exerciser; and

(d) the exerciser experiencing a metabolic exercise rate when engaged only in a walking stride that is equivalent to a metabolic exercise rate experienced by that exerciser for a running stride.

53. (Original) An exercise apparatus for exercising the upper body simultaneously with lower body exercise, the apparatus comprising:

a lower body exercise machine; and

at least one upper body exercise module attached to the lower body exercise machine, each upper body exercise module comprising:

an elongated connector having first and second ends;

a user engagement connected to the elongated connector first end for engaging or being engaged by a body appendage of a user; and

a resistance mechanism for resisting a tensile force applied to the first end of the elongated connector;

each upper body exercise module adapted to provide resistance to a full natural forward arm swing of at least one arm of the user;

a docking engagement located forward of a user position on the lower-body exercise machine for receiving the user engagement in a non-use position with the elongated connector in an extended configuration, the docking engagement adapted to permit the user to optionally disengage and re-engage the user engagement while using the lower body exercise machine.

54. (Original) The exercise machine of claim 53, wherein the docking engagement comprises a post for receiving an eyelet connected to the user engagement.

55. (Original) An exercise apparatus for exercising the upper body simultaneously with lower body exercise, the apparatus comprising:

a lower body exercise machine; and

one or more upper body exercise modules for attachment to the lower body exercise machine, each upper body exercise module comprising:

a mounting interface for mounting the upper body exercise module directly to the lower body exercise machine or to an extension for mounting to the exercise machine;

an elongated connector having first and second ends;

a user engagement connected to the elongated connector first end for engaging or being engaged by a body appendage of a user; and

a resistance mechanism for resisting a tensile force applied to the first end of the elongated connector;

each upper body exercise module adapted to attach to and detach from the lower-body exercise machine or extensions;

the lower body exercise machine comprising a plurality of locations for attaching the one or more upper body exercise modules or extensions.

56. (Original) The exercise apparatus of claim 55, wherein each upper body exercise module is adapted to provide an adjustable level of resistance.

57. (Original) The exercise apparatus of claim 56, wherein the adjustable level of resistance is provided by a plurality of upper body exercise modules, each having a different fixed level of resistance.

58. (Original) The exercise apparatus of claim 56, wherein the adjustable level of resistance is provided by one or more upper body exercise modules, each having a variable level of resistance.

59. (Original) The exercise apparatus of claim 58, wherein each upper body exercise module comprises a visual indicator for indicating the level of resistance.

60. (Original) The exercise apparatus of claim 55, wherein the user engagement of each upper body exercise module is detachable.

61. (Original) The exercise apparatus of claim 55, wherein the elongated connector comprises a clip for attaching and detaching a plurality of interchangeable user engagements.

62. (Original) The exercise apparatus of claim 55, wherein the plurality of locations for attaching the one or more upper body exercise modules or extensions include locations where the one or more upper body exercise modules may be positioned for exercising an arm or a leg of the user.

63. (Original) The exercise apparatus of claim 55, wherein the plurality of locations for attaching the one or more upper body exercise modules or extensions include locations where the one or more upper body exercise modules may be positioned behind or in front of the user.

64. (Original) The exercise apparatus of claim 55, wherein at least one of the plurality of locations for attaching the one or more upper body exercise modules or extensions includes a rearward location where at least one upper body exercise module may be positioned behind the user to provide resistance to a full, natural forward arm swing of the user.

65. (Original) The exercise apparatus of claim 64, wherein the one or more upper body exercise modules each attach to an extension mounted to the rearward location of the lower body exercise machine, and the rearward extension has one or more use positions and at least one non-use position.

66. (Original) The exercise apparatus of claim 65, wherein the extension comprises a locking mechanism for locking the extension in the one or more use positions and an unlocking mechanism to enable movement to another use position or the non-use position.

67. (Original) The exercise apparatus of claim 66, wherein the locking mechanism comprises a pin on a portion of the extension that interfaces with a notch on a portion of the lower body exercise machine and a spring that biases the extension so that the pin remains engaged by the notch, and the unlocking mechanism comprises a manipulator for overriding the spring bias to push the pin out of the notch.

68. (Original) The exercise apparatus of claim 64, wherein the one or more upper body exercise modules each attach to an extension mounted to the rearward location of the lower body exercise machine, the rearward extension located such that the extension does not interfere with a user stepping backward off of the machine.

69. (Original) An exercise apparatus for exercising the upper body simultaneously with lower body exercise, the apparatus comprising:

a lower body exercise machine; and

at least one upper body exercise module positioned for use in conjunction with the lower body exercise machine, each upper body exercise module comprising:

an elongated connector having first and second ends;

a user engagement connected to the elongated connector first end for engaging or being engaged by a body appendage of a user; and

a resistance mechanism for resisting a force applied to the first end of the elongated connector;

each upper body exercise module adapted to provide resistance to a full, natural arm swing of at least one arm of the user.

70. (Original) The exercise apparatus of claim 69 comprising a plurality of interchangeable upper body exercise modules that provide different levels of resistance.

71. (Original) The exercise apparatus of claim 69, wherein the upper body exercise module is adapted to be attached and detached to the lower body exercise machine in a plurality of locations, in a plurality of positions in one or more locations, or a combination thereof.

72. (Original) The exercise apparatus of claim 69, wherein the upper body exercise module is permanently installed on the lower body exercise machine.

73. (Original) The exercise apparatus of claim 69, wherein the upper body exercise module provides action that is independent of action of the lower body exercise machine.

74. (Original) The exercise apparatus of claim 69, wherein the upper body exercise module provides action that is dependent upon action of the lower body exercise machine.

75. (Original) The exercise apparatus of claim 69, further comprising one or more adaptations to the lower body exercise machine to stabilize the user against forces transmitted by the resistance of the upper body exercise module.

76. (Original) The exercise apparatus of claim 75, wherein one adaptation comprises a back support for use with an upper body exercise module mounted behind the user.

77. (Original) The exercise apparatus of claim 75, wherein one adaptation comprises an oversized or at least full-sized foot support for use with a stepper.

78. (Original) The exercise apparatus of claim 69, wherein the upper body exercise module is adapted to attached to the lower body exercise machine in at least a first position for use while a user is in a use position on the lower body exercise machine, and in a second position for use while the user is not in the use position.

79. (Original) The exercise apparatus of claim 69, wherein the first position is adapted for conducting an aerobic workout and the second position is for conducting strength training.

80. (Original) The exercise apparatus of claim 69, wherein the lower body exercise machine comprises an exercise bike.

81. (Original) The exercise apparatus of claim 80, wherein each upper body exercise module is mounted such that the resistance to the full natural arm swing of the user emanates from a point behind, below, and to one side of the user.

82. (Original) The exercise apparatus of claim 81, wherein the upper body exercise module is mounted directly to the lower body exercise machine or on mounting arm.

83. (Original) The exercise apparatus of claim 81 comprising a guide or pulley mounted in a first position at the point behind, below, and to one side of the user to direct the connector to the user from a mounting position of the upper body exercise module in a second position remote from the first position.

84. (Original) The exercise apparatus of claim 81, wherein the upper body exercise module is mounted on a mounting arm that is adjustable in an upward/downward direction relative to the user, a forward/backward direction relative to the user, or a combination thereof.

85. (Original) The exercise apparatus of claim 69, wherein the at least one upper body exercise module is mounted on a mounting arm that is adjustable in an upward/downward direction relative to the user, a forward/backward direction relative to the user, or a combination thereof.

86. (Original) The exercise apparatus of claim 69, wherein the at least one upper body exercise module is mounted on a platform on which at least a portion of the lower-body exercise machine is adapted to rest.

87. (Original) The exercise apparatus of claim 87, wherein the at least one upper body exercise module comprises interchangeable user engagements, at least one user engagement designed for use of the upper body exercise module in conjunction with the lower body exercise machine, and a at least another user engagement designed for use by a user standing directly on the platform not in conjunction with the lower body exercise machine.

88. (Original) A method of total body exercise comprising the step of an exerciser performing an upper body exercise simultaneously with a lower body exercise, wherein the upper body exercise comprises exercising with a full, natural, multiplanar arm swing against a resistance force, the resistance force transmitted to the exerciser via a user engagement at one end of a connector connected to a source of the resistance force, wherein the exerciser engages the user engagement with a loose or open grip.

89. (Original) The method of claim 79 comprising the user adopting a slower pace and taking deeper, more rhythmic breaths as compared to the user using the lower body exercise machine without simultaneously using the upper body exercise module. 90. (Newly added).

90. (Newly added) An exercise machine for providing total body exercise, the exercise machine comprising:

a lower body exercise mechanism adapted to provide lower body exercise for a user positioned in a use position on the exercise machine;

at least two upper body resistance devices directly mounted on the lower body exercise machine, each adapted to provide resistance to backward arm movements of a user in the use position, each upper body resistance device comprising an elongated connector having first and second ends; a user engagement connected to the elongated connector first end for engagement of or by a portion of the user's upper body; and a resistance mechanism for resisting a tensile force applied to the elongated connector, wherein the resistance mechanism is not powered exclusively by elasticity of the elongated connector.

91. (Newly added) The exercise machine of claim 90, wherein the upper body resistance device comprises a reel comprising a spool connected to the elongated connector second end and on which the elongated connector is adapted to be wound, wherein the resistance mechanism comprises a mechanism for resisting unwinding of the spool and the reel further comprises a retraction mechanism for automatically rewinding the spool.

92. (Newly added) The exercise machine of claim 90, wherein the upper body resistance device user engagement is adapted for engagement by the user's hand.

93. (Newly added) The exercise machine of claim 90, wherein the upper body resistance device user engagement comprises a handle or grip.

94. (Newly added) The exercise machine of claim 90, wherein the upper body resistance device resistance mechanism is adapted to provide a non-adjustable degree of resistance.

95. (Newly added) The exercise machine of claim 90, wherein the upper body resistance device resistance mechanism is adapted to provide less than 10 pounds of resistance.

96. (Newly added) The exercise machine of claim 91, wherein the upper body resistance device is adapted to be fully retractable such that a stop at or near the connector first end abuts a housing for the spool absent a sufficient unwinding force exerted upon the connector.

97. (Newly added) The exercise machine of claim 90, wherein the upper body resistance device resistance mechanism comprises a spring.

98. (Newly added) The exercise machine of claim 97, wherein the upper body resistance device resistance mechanism spring comprises a coil spring.

99. (Newly added) The exercise machine of claim 98, wherein the upper body resistance device retraction mechanism comprises a spring.

100. (Newly added) The exercise machine of claim 99, wherein the upper body resistance device retraction mechanism spring comprises a coil spring.

101. (Newly added) The exercise machine of claim 99, wherein the upper body resistance device resistance mechanism comprises the same spring that comprises the retraction mechanism.

102. (Newly added) The exercise machine of claim 101, wherein the upper body resistance device retraction and resistance mechanism spring comprises a coil spring

103. (Newly added) The exercise machine of claim 90, wherein the exercise machine comprises a machine selected from a group consisting of: a treadmill, an air walkers/glider, an upright or recumbent bicycle machine, a torso-twisting disk, a cross-trainer, a stepper, an elliptical exercise machine, a cross-country or downhill ski machine, a trampoline, a squat machine, a rowing machine, a stretching machine, and an abdominal machine.

104. (Newly added) The exercise machine of claim 90, wherein each upper body resistance device is adapted to function independently of the lower body exercise mechanism.

105. (Newly added) The exercise machine of claim 90, wherein each of the at least two upper body resistance devices is adapted to function independently of the other.

106. (Newly added) The exercise machine of claim 90, wherein the upper body exercise devices are mounted forward of the user.

107. (Newly added) The exercise machine of claim 90, wherein each of the upper body exercise devices is mounted in a location other than forward of the user, the exercise machine further comprising one or more guides adapted to direct the elongated connector to a point forward of the user.

108. (Newly added) The exercise machine of claim 107, wherein the one or more guides comprises at least one pulley.

109. (Newly added) The exercise machine of claim 90, wherein the elongated connector is non-elastic.

110. (Newly added) The exercise machine of claim 90, wherein the elongated connector is elastic.

111. (Newly added) An exercise machine for providing total body exercise, the exercise machine comprising:

a lower body exercise machine adapted to accommodate a user positioned in a use position;

one or more upper body resistance devices directly mounted on the lower body exercise machine, each upper body resistance device adapted to provide resistance to backward arm movements of a user in the use position and comprising an elongated connector having first and second ends; a user engagement connected to the elongated connector first end for engagement of or by a portion of the user's upper body; a resistance mechanism for resisting a tensile force applied to the elongated connector, and a retraction mechanism for automatically retracting the elongated connector absent the tensile force, wherein neither the resistance mechanism nor the retraction mechanism are powered exclusively by elasticity of the elongated connector or user-applied force.

112. (Newly added) The exercise machine of claim 111, wherein the upper body resistance device comprises a reel comprising a spool connected to the elongated connector second end and on which the elongated connector is adapted to be wound, wherein the resistance mechanism comprises a mechanism for resisting unwinding of the spool; and the retraction mechanism is adapted to automatically rewind the spool.

113. (Newly added) The exercise machine of claim 111, wherein the upper body resistance device user engagement is adapted for engagement by the user's hand.

114. (Newly added) The exercise machine of claim 111, wherein the upper body resistance device user engagement comprises a handle or grip.

115. (Newly added) The exercise machine of claim 111, wherein the upper body resistance device resistance mechanism is adapted to provide a non-adjustable degree of resistance.

116. (Newly added) The exercise machine of claim 111, wherein the upper body resistance device resistance mechanism is adapted to provide less than 10 pounds of resistance.

117. (Newly added) The exercise machine of claim 112, wherein the upper body resistance device is fully retractable such that a stop at or near the connector first end abuts a housing for the spool absent a sufficient unwinding force exerted upon the connector.

118. (Newly added) The exercise machine of claim 111, wherein the upper body resistance device resistance mechanism comprises a spring.

119. (Newly added) The exercise machine of claim 118, wherein the upper body resistance device resistance mechanism spring comprises a coil spring.

120. (Newly added) The exercise machine of claim 112, wherein the upper body resistance device retraction mechanism comprises a spring.

121. (Newly added) The exercise machine of claim 120, wherein the upper body resistance device retraction mechanism spring comprises a coil spring.

122. (Newly added) The exercise machine of claim 120, wherein the upper body resistance device resistance mechanism comprises the same spring that comprises the retraction mechanism.

123. (Newly added) The exercise machine of claim 122, wherein the upper body resistance device retraction and resistance mechanism spring comprises a coil spring.

124. (Newly added) The exercise machine of claim 111, wherein the exercise machine comprises a machine selected from a group consisting of: a treadmill, an air walkers/glider, an upright or recumbent bicycle machine, a torso-twisting disk, a cross-trainer, a stepper, an elliptical exercise machine, a cross-country or downhill ski machine, a trampoline, a squat machine, a rowing machine, a stretching machine, and an abdominal machine.

125. (Newly added) The exercise machine of claim 111, wherein each upper body resistance device is adapted to function independently of the lower body exercise mechanism.

126. (Newly added) The exercise machine of claim 111 comprising two upper body resistance devices, a first device adapted for use by a left arm of the user and a second device adapted for use by a right arm of the user.

127. (Newly added) The exercise machine of claim 126, wherein the two upper body resistance devices operate independently of one another.

128. (Newly added) The exercise machine of claim 111, wherein each upper body exercise device is mounted forward of the user.

129. (Newly added) The exercise machine of claim 107, wherein each upper body exercise device is mounted in a location other than forward of the user, the exercise machine further comprising one or more guides adapted to direct the elongated connector to a point forward of the user.

130. (Newly added) The exercise machine of claim 129, wherein the one or more guides comprises at least one pulley.

131. (Newly added) A method of exercising comprising using the machine of claim 111.

132. (Newly added) The method of claim 131 comprising performing warm-up exercises, aerobic and/or strength training exercises, or cool-down exercises.

133. (Newly added) The exercise machine of claim 111, wherein each upper body exercise device is adapted to provide resistance to a multi-planar, natural, free-swinging, full backward arm motion of the user.

134. (Newly added) An exercise machine for providing total body exercise, the exercise machine comprising:

a lower body exercise machine adapted to accommodate a user positioned in a use position;

one or more upper body resistance devices directly mounted to the lower body exercise machines in a location not forward of the user, each device adapted to provide resistance to backward arm movements of a user in the use position and comprising an elongated connector having first and second ends; a user engagement connected to the elongated connector first end for engagement of or by a portion of the user's upper body; and a

resistance mechanism for resisting a tensile force applied to the elongated connector, the resistance mechanism not powered exclusively by elasticity of the elongated connector, and

one or more guides for directing the elongated connector to a point forward of the user.

135. (Newly added) The exercise machine of claim 134, wherein the upper body resistance device comprises a reel comprising a spool connected to the elongated connector second end and on which the elongated connector is adapted to be wound, wherein the resistance mechanism comprises a mechanism for resisting unwinding of the spool; and the reel further comprises a retraction mechanism for automatically rewinding the spool.

136. (Newly added) The exercise machine of claim 134, wherein the upper body resistance device user engagement is adapted for engagement by the user's hand.

137. (Newly added) The exercise machine of claim 134, wherein the upper body resistance device user engagement comprises a handle or grip.

138. (Newly added) The exercise machine of claim 134, wherein the upper body resistance device resistance mechanism is adapted to provide a non-adjustable degree of resistance.

139. (Newly added) The exercise machine of claim 134, wherein the upper body resistance device resistance mechanism is adapted to provide less than 10 pounds of resistance.

140. (Newly added) The exercise machine of claim 135, wherein the upper body resistance device is fully retractable such that a stop at or near the connector first end abuts a housing for the spool absent a sufficient unwinding force exerted upon the connector.

141. (Newly added) The exercise machine of claim 134, wherein the upper body resistance device resistance mechanism comprises a spring.

142. (Newly added) The exercise machine of claim 141, wherein the upper body resistance device resistance mechanism spring comprises a coil spring.

143. (Newly added) The exercise machine of claim 135, wherein the upper body resistance device retraction mechanism comprises a spring.

144. (Newly added) The exercise machine of claim 143, wherein the upper body resistance device retraction mechanism spring comprises a coil spring.

145. (Newly added) The exercise machine of claim 144, wherein the upper body resistance device resistance mechanism comprises the same spring that comprises the retraction mechanism.

146. (Newly added) The exercise machine of claim 145, wherein the upper body resistance device retraction and resistance mechanism spring comprises a coil spring.

147. (Newly added) The exercise machine of claim 134, wherein the exercise machine comprises a machine selected from a group consisting of: a treadmill, an air walkers/glider, an upright or recumbent bicycle machine, a torso-twisting disk, a cross-trainer, a stepper, an elliptical exercise machine, a cross-country or downhill ski machine, a trampoline, a squat machine, a rowing machine, a stretching machine, and an abdominal machine.

148. (Newly added) The exercise machine of claim 134, wherein each upper body resistance device is adapted to function independently of the lower body exercise mechanism.

149. (Newly added) The exercise machine of claim 134, wherein each of the at least two upper body resistance devices is adapted to function independently of the other.

150. (Newly added) The exercise machine of claim 134, wherein the upper body exercise devices are mounted forward of the user.

151. (Newly added) The exercise machine of claim 134, wherein each of the upper body exercise devices is mounted in a location other than forward of the user.

152. (Newly added) The exercise machine of claim 134, wherein the one or more guides comprises at least one pulley.

153. (Newly added) The exercise machine of claim 134, wherein the elongated connector is non-elastic.

154. (Newly added) The exercise machine of claim 134, wherein the elongated connector is elastic.

155. (Newly added) An exercise machine for providing total body exercise, the exercise machine comprising:

a treadmill having a use position for accommodating a user of the treadmill;

one or more upper body exercise reels directly mounted on the treadmill forward of the user position, each exercise reel adapted to provide less than 10 pounds of non-adjustable resistance to backward arm movements of a user in the use position and adapted to function independently of the treadmill and independently of one another, each exercise reel comprising:

an elongated, non-elastic connector having first and second ends;

a hand grip connected to the elongated connector first end for engagement by the user;

a spool, mounted within a housing, connected to the elongated connector second end, and on which the elongated connector is adapted to be wound;

a spring attached to the spool adapted to provide resistance to unwinding of the connector from the spool and also adapted to provide a retraction force for automatically rewinding the connector onto the spool,

the exercise reel adapted to fully retract when not in use such that a stop at or near the connector first end abuts the housing absent a sufficient unwinding force exerted upon the connector.

156. (Newly added) A method of exercising comprising using the machine of claim 90.

157. (Newly added) A method of exercising comprising using the machine of claim 134.

158. (Newly added) A method of exercising comprising using the machine of claim 155.

159. (Newly added) The method of claim 156 comprising performing warm-up exercises, aerobic and/or strength training exercises, or cool-down exercises.

160. (Newly added) The method of claim 157 comprising performing warm-up exercises, aerobic and/or strength training exercises, or cool-down exercises.

161. (Newly added) The method of claim 160 comprising performing warm-up exercises, aerobic and/or strength training exercises, or cool-down exercises.

162. (Newly added) The exercise machine of claim 90, wherein each upper body exercise device is adapted to provide resistance to a multi-planar, natural, free-swinging, full backward arm motion of the user.

163. (Newly added) The exercise machine of claim 162, wherein the exercise machine is free of obstructions to the multi-planar, natural, free-swinging, full backward arm motion of the user.

164. (Newly added) The exercise machine of claim 90, wherein each upper body exercise device is adapted to be engaged by the user with an open or loose grip.

165. (Newly added) The exercise machine of claim 90, wherein each upper body exercise device is adapted to provide an adjustable degree of resistance.

166. (Newly added) The exercise machine of claim 90, wherein each upper body exercise device is adapted to function in a manner that is dependent upon the lower body exercise mechanism.

167. (Newly added) The exercise machine of claim 90, wherein each upper body exercise device is permanently connected to the exercise machine.

168. (Newly added) The exercise machine of claim 90, wherein each upper body exercise device is detachable from the exercise machine.

169. (Newly added) The exercise machine of claim 111, wherein each upper body exercise device is adapted to be engaged by the user with an open or loose grip.

170. (Newly added) The exercise machine of claim 111, wherein each upper body exercise device is adapted to provide an adjustable degree of resistance.

171. (Newly added) The exercise machine of claim 111, wherein each upper body exercise device is adapted to function in a manner that is dependent upon the lower body exercise mechanism.

172. (Newly added) The exercise machine of claim 111, wherein each upper body exercise device is permanently connected to the exercise machine.

173. (Newly added) The exercise machine of claim 111, wherein each upper body exercise device is detachable from the exercise machine.

174. (Newly added) The exercise machine of claim 134, wherein each upper body exercise device is adapted to be engaged by the user with an open or loose grip.

175. (Newly added) The exercise machine of claim 134, wherein each upper body exercise device is adapted to provide an adjustable degree of resistance.

176. (Newly added) The exercise machine of claim 134, wherein each upper body exercise device is adapted to function in a manner that is dependent upon the lower body exercise mechanism.

177. (Newly added) The exercise machine of claim 134, wherein each upper body exercise device is permanently connected to the exercise machine.

178. (Newly added) The exercise machine of claim 134, wherein each upper body exercise device is detachable from the exercise machine.

179. (Newly added) The exercise machine of claim 155, wherein each upper body exercise device is adapted to be engaged by the user with an open or loose grip.

180. (Newly added) The exercise machine of claim 155, wherein each upper body exercise device is adapted to provide an adjustable degree of resistance.

181. (Newly added) The exercise machine of claim 155, wherein each upper body exercise device is adapted to function in a manner that is dependent upon the lower body exercise mechanism.

182. (Newly added) The exercise machine of claim 155, wherein each upper body exercise device is permanently connected to the exercise machine.

183. (Newly added) The exercise machine of claim 155, wherein each upper body exercise device is detachable from the exercise machine.